

Krypton ProLine AB70A PLUS



Polyurea system for industrial application

DESCRIPTION

Krypton ProLine AB 70A Plus is a excellent elongation polyurea for applications on substrates exposed to very high/low temperatures or with expansion contraction movements. Low viscosity polyurea, with great mechanical strength, elasticity and aesthetic finish. Specially designed as a coating for foam furniture and objects cut in 3D, industrial design. Easy application with 1:1 hot mechanical projection equipment.

APPLICATION

- coating for foam furniture and foam objects cut in 3D
- Industrial design
- Flexible polyurea flooring.
- Protective elastic coating
- Krypton ProLine AB70A Plus can be coated with aliphatic polyurethane to provide UV protection and avoid color variations.

PROPERTIES

- Very high elongation
- Abrasion resistant
- High mechanical strength
- Membrane with high elasticity, totally continuous.
- Fast curing with hot spray application for two components.

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION				
	Component A		Component B	
Chemical description	Polyamine		Aromatic isocyanate prepolymer	
Physical state	Liquid		Liquid	
Packaging Note: Pigment is delivered in a third container. See Pigment Spray data sheet for specific details.	Metal container 200 kg Pigment 4 kg		Metal container 220 kg	
Non-volatile content	approx 100%		100%	
Flash point	>100°C		>100°C	
Colour	Dark yellow		Slightly yellow	
Density	Temperature (°C)	Density (g/cm ³)	Temperature (°C)	Density (g/cm ³)
	25	1.01	25	1.13
Viscosity	Temperature (°C)	Viscosity (mPa.s)	Temperature (°C)	Viscosity (mPa.s)
	25	200-600	25	1500-2200
Mixing ratio A/B	A=1, B=1,1 by weight A=1, B=1 by volume			
Density and viscosity of the mixture	Fast polymerization. See Pot life data			
Colour	Dark yellow, but component A is pigmented by addition of pigment paste (Pigment Spray) delivered with each kit of Krypton ProLine AB 85H Elastic..			

Pot life	Gel time mixture A+B (20 g) 12 s at 25°C Tackfree in 20 seconds Time for handling/piling up3 hours
Storage	Keep between 10° y 30°C.
Use before	12 months after manufacture date, provided it is kept in its sealed container.

INFORMATION ON THE FINAL PRODUCT

Final state	Solid elastomeric membrane
Colour	Available colours: light grey, dark grey, Other colours RAL under request.
Hardness (Shore)	67A (ISO 868)
Mechanical properties	Elongation at break: 900% Tensile strength: 9 MPa (UNE EN ISO 527-1/3)
UV resistance	Good resistance to UV-induced degradation. Aromatic polyureas undergo change of colour under sunlight. This change does not affect its mechanical properties. Additional UV protection can be achieved by application of an Krypton topcoat.

SUSTRATES

Foam:

The foam substrate must be dry and clean and free of contamination. Polyurea can be applied directly on foam although for lower consumption sealing the with primer is recommended.

Wood

All wood must be clean, dry, free of knots, chips, oil, grease or other contaminants and with a roughness profile. The chipped or rough areas should be sanded.

Application of sealing primer (Consult Krypton Technician department)

RECOMMENDED ENVIRONMENTAL CONDITIONS

Air temperature should be between 10°C and 40°C. Relative air humidity should be less than 70%.

MIXING

Stir and homogenise separately both components using suitable mixing equipment before being loaded into the machine. Best Mixing equipment should have extensible blades with overall width equivalent to 1/3 of drum diameter. Add the required Pigment Spray to the A-component and stir before loading. Recirculate both components while heating up to the required application temperatures.

APPLICATION GUIDELINES

Krypton ProLine AB70A Plus must be applied using a 2-component hot spraying equipment. Recommended temperatures are:

- Component A: 70°C
- Component B: 75°C
- Hose temperature: 70°C

Pressure should be 150 bar.

During application, check layer thickness and curing speed.

Spray Krypton ProLine AB 70A Plus. at 1-2 kg/m².

Wind speeds in excess of 25 km/h may result in excessive loss of exotherm and interfere with the mixing efficiency of the spray gun affecting polyurea surface texture, cure, and physical properties and will cause overspray issues.

Contact Krypton Chemical for more detailed technical information.



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CURING TIME

Approximate hardness values are provided as reference only (2 mm, polypropylene support, 20°C 50% RH)

Time	Hardness shore A
45 min	53
3 hours	56A
1 day	67A

REAPPLICATION

Usually, necessary thickness can be obtained in one single coat. If necessary, a second coat can be applied immediately afterwards. In any case, do not wait more than 2 hours for a second coat. If spraying over a previously applied epoxy primer, ensure the primer is completely cured (ca 8 hours)

RETURN TO SERVICE

After 1 day, more than 90% of the final properties are reached.

TOOL CLEANING

Solvent use for machine component cleaning is discouraged. A cleaning plasticizer fluid like Rayston Fluid is suitable. Component B must be completely removed from all air-exposed parts and replaced with this cleaning fluid.

CLEANING AND MAINTENANCE

A maintenance work should be carried out regularly on the treated surfaces according to the intended use

FAQs

Problem	Question	Cause	Solution
product does not cure	AB ratio is correct?	Pressure differences	Check and correct machine operation
Bubbles or open pores	Porous support?	No primer	Apply suitable primer before Krypton ProLine AB 70A Plus
			Apply 1 kg/m ²
No hiding power	Horizontal?	Too little product	Ensure full
		Too little pigment	A+pigment homogeneization
Colour change	Exposed to sunlight?	UV-reaction	Use a last coat in dark grey or red
			Not recommended.
	Can it be applied without pigmentation?		Krypton ProLine AB 70A Plus is always delivered with the pigment of choice. Use of pigment helps to obtain an uniform appearance

SAFETY

Component B contains isocyanates. Always follow the safety instructions in the Material Safety Data Sheet. As a general rule, a good ventilation and/or respiratory protection is needed (combined organic vapor filters+particles) along with protective clothing. This product must be used only for the applications here described. This product is intended for industrial and professional use. It is not suitable for DIY-type applications.

ENVIRONMENTAL PRECAUTIONS

LEED-requirements compliant.

EQ Credit 4.2, Low emissin materials: Paints and Coatings.

Empty containers must be handled with the same precautions as if they were full. Treat empty containers as hazardous waste, and transfer them to an authorized waste manager. If the container still has some material left, do not mix with other product with no knowledge of potential dangerous reactions. Component A and B may be mixed on a 1/1 ratio in order to get an inert material, but never do it in volumes larger than 5 litres in order to prevent a dangerous heat evolution.

OTHER INFORMATION

The information contained in this Technical Data Sheet, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend to study deeply all information provided before proceeding to the use or application of any of our products, and strongly advise to conduct tests "on-site" in order to determine their convenience for a specific project.

Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise.

The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.

This Technical Data Sheet supersedes previous versions.



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